

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 3/26/08 has been entered.

The following is an examiner's statement of reasons for allowance:

The IDS filed 3/26/2008 indicates that the European Patent Office considers claims similar to the instant claims as obvious over Arroyo et al (Trends in Molecular Medicine 7:350-354, 2001; cited in IDS filed 10/13/2004). In Arroyo, there is an explicit suggestion to systematically mutate the West Nile sequence in a Yellow Fever/West Nile chimera, particularly with the 10 amino acid positions linked to attenuation in Japanese Encephalitis Virus. Arroyo states that, in JEV, residue 138 had a dominant effect on neurovirulence, and residues 107, 176, 279, 264, and 227 contributed to measurable increases in virulence. The contribution of positions 315 and 439 were not disclosed (these positions correspond to applicant's positions 316 and 440). In contrast, in this application applicants found that, in WN, the combination of residues 316 and 440 had a dominant effect on virulence, which would not have been expected

according to the teachings of Arroyo. Therefore, this combination of attenuating mutations renders the claims nonobvious over Arroyo.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary E. Mosher, Ph.D. whose telephone number is 571-272-0906. The examiner can normally be reached on varying dates and times; please leave a message.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bruce Campell can be reached on 571-272-0974. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mary E Mosher, Ph.D./
Primary Examiner, Art Unit 1648

4/16/08